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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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William I. Chang

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03/10/2009

Haynes and Boone, LLP

IP Section

2323 Victory Avenue

SUITE 700

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EXAMINER

BETT, JACOB F

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/813,940	Applicant(s) CHANG, WILLIAM I.	
	Examiner Jacob F. Bétit	Art Unit 2169	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 3-7 and 16-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,8-15 and 21-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Remarks

1. In response to communications filed on 1 December 2008, claims 13 and 26 have been amended per the applicant's request. Claims 1-26 are presently pending in the application of which claims 3-7 and 16-20 are withdrawn from further consideration.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2, 8-10, 14-15, and 21-23 are rejected under 35 U.S.C. 103(a) as being obvious over "A Distributed Event Logging System" published 12/03/2001, known hereafter as Jaiswal, in view of "NetLogger: A Toolkit for Distributed System Performance Analysis" published in July 1998, known hereafter as Gunter and xntpd(1Mtcp), published in 1999, known hereafter as xntpd.

Claims 1 and 14 are rejected for the following reasons:

Jaiswal teaches:

A distributed system comprising: a plurality of cooperative processes running on a plurality of processors of a computer network to accomplish a distributed transaction,(Page 1 para 2) each process logging in a local resource records of execution of the distributed transaction by the process on its processor; and a search engine running on each of the plurality of

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processors,(Section 5 para 2) each search engine retrieving corresponding records of execution in response to a query regarding the distributed transaction(Section 6).

Jaiswal fails to expressly disclose:

a system synchronizer sending a timing message to be logged to the plurality of cooperative processes;

However, this limitation would have been obvious in view of Gunter which uses NTP and xntpd to synchronize the time of all of the servers in a distributed processing system, and xntpd which teaches the logging of the periodic timing messages received by servers as part of the xntpd daemon used (monitoring option).

Gunter:

2.1 Clock Synchronization: NTP

To analyze a network-based system using timestamps, the clocks of all systems involved must be synchronized. This can be achieved by using the Network Time Protocol (NTP) [10]. By installing a GPS-based NTP server on each subnet of the distributed system, and running the *xntpd* daemon on each host, all host clocks can be synchronized to within about 0.25 ms of each other. It has been our experience that most application-significant events can be accurately characterized by timestamps that are accurate to about 1 ms, well within NTP's tolerances. If the closest time source is several IP router hops away, NTP accuracy will be somewhat less, but probably still accurate enough for many types of analysis. The NTP web site¹ has a list of public NTP servers that one may be able to connect and synchronize with.

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to include these features, as they provide more accurate timing to provide more accurate analysis.

Claims 2 and 15 are rejected for the following reasons:

A distributed system as in claim 1, wherein the query is issued to the processors as a distributed query.(Section 6)

Claims 8 and 21 are rejected for the following reasons:

A distributed system as in claim 1, wherein the query is issued from a client which merges the results received from search engines responding to the query. (Section 6, Paras 2 and 4)

Claims 9 and 22 are rejected for the following reasons

A distributed system as in claim 8, wherein the client applies program rules on the merged results to determine correct operation of the distributed system. (Section 1 para 2)

Claims 10 and 23 are rejected for the following reasons:

A distributed system as in claim 1, wherein each search engine generates indices to the records of execution.(Section 4)

4. Claims 11-12 and 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jaiswel in view of “NetLogger: A Toolkit for Distributed System Performance Analysis”

published in July 1998, known hereafter as Gunter and xntpd(1Mtcp), published in 1999, known hereafter as xntpd in view of US 6647517 files Apr. 27, 2000, known hereafter as Dickey.

Claims 11-12, and 24-25 are rejected as Jaiswel as modified, teaches periodically backing up log files and stating a new file in section 4 para 2, however Jaiswel as modified, fails to teach how the logs are stored. Dickey col 2 lines 1-14 teaches storing initially in memory, Col 5 lines 31-39 teaches offloading to a disk storage. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention to include these features, as using memory is fast, and using disk memory for old or backup data is cheaper.

5. Claims 13 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jaiswel in view of "NetLogger: A Toolkit for Distributed System Performance Analysis" published in July 1998, known hereafter as Gunter and xntpd(1Mtcp), published in 1999, known hereafter as xntpd in view of US 6647517 files Apr. 27, 2000, known hereafter as Dickey in further view of US 6330570, filed Feb 26, 1999 known hereafter as Crighton or US 6,618,822 filed Jan 3, 2000 known hereafter as Loaiza.

Jaiswel as modified, teaches the claims upon which claims 13 and 26 are dependent, but fail to expressly disclose the merger of the indices in memory and in the disk storage. This is taught in Crighton Col 6 lines 40-48 which teaches an append type backup, by appending in this manner would cause the current file (the one stored in memory in this case) to be appended (and thus merged with) to the backup cope(the indices on the disk) Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to add this feature do to the advantage of providing a backup contains all previous log data) In the alternative, Loaiza also

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teaches this limitation as it teaches querying ranges of time in col 16 lines 1-14, thus in the instance were the range included both to backup and the current file the two would be merged as query results are merged as discussed in claim 8. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention to include this feature to provide the advantage of narrowing the search to a date range.

Response to Arguments

6. Applicant's arguments filed 1 December 2008 have been fully considered but they are not persuasive.

In response to the applicant's arguments that "Jaiswal's discussion at sections 4 and 5 ... are merely event logs that do not relate to records of execution of distributed transactions", the arguments have been considered, but are not deemed persuasive. The applicant states "Jaiswal expressly teaches that its system is strictly an event logging system, which has no need to save any record at the transaction level". The applicant then goes on to quote from the Jaiswal reference. However, the quoted section does not deal with what information is being placed in the log, and it deals with the functionalities of the SQL server and the semantics of the queries it processes. The applicant has failed to address what information is believed to be missing from the transactions that are logged in the Jaiswal system. Further, the logs do relate to the records of execution of distributed transactions actions as previously indicated. "In other words, here's a tool that gives you all the information you need about any events occurring on any of the machines in that network." See Jaiswal, section 3, second paragraph.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacob F. Bétit whose telephone number is (571)272-4075. The examiner can normally be reached on Monday through Friday 10:30 am to 6:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tony Mahmoudi can be reached on (571) 272-4078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

/Tony Mahmoudi/
Supervisory Patent Examiner, Art Unit
2169

jfb
5 Mar 2009